

Claims

- [c1] 1. A method for reversing the driving direction of a vehicle that is in motion, and in which a movement of a gear selector to a position that indicates the reverse driving direction is detected, said method comprising:
applying the vehicle's driving brakes (10) in dependence upon a degree of depression of the vehicle's gas pedal after the gear selector has assumed the reverse driving direction position.
- [c2] 2. The method as recited in claim 1, wherein the driving brakes (10) are applied proportionally to a change in position of the gas pedal.
- [c3] 3. The method as recited in claim 1, wherein a speed of an engine (1) of the vehicle is increased with increased depression of the gas pedal.
- [c4] 4. The method as recited in claim 1, wherein a gearbox (2) of the vehicle is disconnected (13) from the vehicle's engine (1) when the gear selector is detected to have been moved to the reverse driving direction position.
- [c5] 5. The method as recited in claim 4, wherein a change (15) in the gearbox is effected from the current gear po-

sition to a position that indicates the selected gear for driving in the reverse direction after disconnection (13) of the vehicle's gearbox (2) from the vehicle's engine (1).

[c6] 6. The method as recited in claim 1, wherein after application of the vehicle's driving brakes, the engine speed is automatically reduced (16).

[c7] 7. The method as recited in claim 1, wherein after application of the vehicle's driving brakes and when the vehicle's speed is approaching zero, the driving brakes (10) are deactivated (17).

[c8] 8. The method as recited in claim 7, wherein upon deactivation of the driving brakes (10), control of the brakes (10) via the position of the gas pedal ceases and the driving brakes (10) are gradually deactivated (17) until the speed of the vehicle is zero.

[c9] 9. The method as recited in claim 1, wherein after application of the vehicle's driving brakes (10) and when the vehicle's speed has dropped to a value close to zero, the gearbox (2) is gradually automatically connected (18) to the engine (1) in such a way that the vehicle is moved in the new driving direction.

[c10] 10. The method as recited in claim 9, wherein the driving brakes (10) are gradually deactivated (17) at the same

time as said gradual connection of the gearbox (2) to the engine (1) is effected (18).

- [c11] 11. The method as recited in claim 9, wherein the gradual connection of the gearbox (2) is carried out (18) via disc clutches.
- [c12] 12. The method as recited in claim 1, wherein the gearbox (2) consists of an electronically controlled automatic gearbox.
- [c13] 13. The method as recited in claim 1, wherein the vehicle consists of a work machine.
- [c14] 14. The method as recited in claim 13, wherein the work machine is configured as a wheel loader.
- [c15] 15. A method for reversing the driving direction of a moving vehicle, said method comprising:
inputting, by an operator of a forward traveling vehicle, of a command that is detected by an automated control unit of a drive train of the vehicle, said command being indicative of a desire of the operator to reverse the travel direction of the forward traveling vehicle;
applying the vehicle's driving brakes (10), via the automated control unit, in an amount corresponding to a degree of depression of an accelerator of the vehicle after the reverse command has been detected.

[c16] 16. The method as recited in claim 15, further comprising:

controlling the speed of an engine (1) of the vehicle to an amount corresponding to the degree of depression of the accelerator of the vehicle after the reverse command has been detected;

disconnecting the engine from the drive train; and

controlling braking effects of the vehicle to approximate conventional operation of a vehicle that utilizes engine power to directly brake the vehicle, via the drive train, thereby providing a familiar vehicle operational feel to the operator.

[c17] 17. The method as recited in claim 16, further comprising:

directing a predominance of the power of the disconnected engine to vehicle operations other than the braking function.